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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,392	03/29/2001	Vladimir Sindalovsky	Lauturell 49-16 P24,627 U	5514

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EXAMINER

PHAM, TUAN

ART UNIT PAPER NUMBER

2643

DATE MAILED: 11/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/820,392

Applicant(s)

SINDALOVSKY ET AL.

Examiner

TUAN A PHAM

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1, 3-7 and 9-16 is/are allowed.
- 6) ☒ Claim(s) 17-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's arguments filed on 08/30/04 have been fully considered but they are not persuasive. The Applicant fails to respond to the claims 17-23 of the Office action was mailed on 04/23/2004. Therefore, the rejections of claims 17-23 in the previous Office Action have been maintained. Accordingly, **THIS ACTION IS MADE FINAL.**

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Couet (U.S. Patent No. 5,828,266) in view of Greaves (U.S. Patent No. 5,408,529).

Regarding claim 17, Couet teaches a method for detecting the presence of a signaling tone on one of a plurality of potential signaling tone frequencies in a communication signal on a transmission line comprising the steps of:

(2) configuring the resonator to resonate at one of the potential signaling tone frequencies (see col.6, ln.25-67),

(3) capturing and storing a first value output by the resonator configured to resonate at the one of the potential signaling tone frequencies (see col.6, ln.25-67),

(4) configuring the resonator to resonate at a reference frequency (see col.5, ln.18-50),

(5) capturing and storing a second value output by the resonator configured to resonate at the reference frequency (see col.3, ln.5-25, col.6, ln.25-67, col.7, ln.1-40),

(6) comparing the first value to the second value (see col.3, ln.5-25, col.6, ln.25-67, col.7, ln.1-40), and

(7) generating an indicator indicating whether the first value exceeds the second value by a predefined amount (see col.3, ln.5-25, col.6, ln.25-67, col.7, ln.1-40).

It should be noticed that Couet fails to clearly teach receiving the communication signal at a resonator. However, Greaves teaches such features (see figure 1, resonator 30, input Ain, col.3, ln.7-18) for a purpose of receiving the signals from communication line.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of receiving the communication signal at a resonator, as taught by Creaves, into view of Couet in order to detect the difference frequency signals.

Regarding claims 18 and 20, Couet further teaches the method further comprising the step of repeating steps 2 through 7 for each of the plurality of potential signaling tone frequencies (see col.6, ln.20-67, col.7, ln.1-40). It should be noticed that Couet does not teach repeating of steps. However, one of skill in the art would have known the repeating of step 2-7 of Couet's reference will be performed for each signaling tone frequencies.

Regarding claim 19, Greaves further teaches the method further comprising the steps of: filtering the communication signal to remove frequencies above a predefined amount; and converting the filtered communication signal from analog to digital; wherein the filtering and converting are performed prior to being received by the resonator (see figure 1, col.3, ln.29-49).

4. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Couet (U.S. Patent No. 5,828,266) in view of Greaves (U.S. Patent No. 5,408,529) as applied to claim 17 above, and further in view of Djadi et al (U.S. Patent No. 6,661,891, hereinafter, "Djadi").

Regarding claim 21, Couet and Greaves, in combination, fails to clearly teach the method wherein the indicator is an interrupt used to wake a processor from a low power mode. However, Djadi teaches such features (see col.4, ln.30-41) for a purpose of detecting tone on telephone lines.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the method wherein the indicator is an interrupt used to wake a processor from a low power mode, as taught by Djadi, into view of Couet and Greaves in order to conserve the power and reduce the amount of heat in the DSP.

Regarding claim 22, Djadi further teaches the method wherein steps 2, 3, 4, and 5 are performed serially (see col.4, ln.30-42).

Regarding claim 23, Djadi further teaches the method wherein steps 2, 3, 4, and 5 are performed in parallel (see col.4, ln.30-42).

Allowable Subject Matter

5. Claims 1, 3-7, and 9-16 ^{are} allowed.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any response to this final action should be mailed to:

Box AF

**Commissioner of Patents and Trademarks
Washington, D.C. 20231**

or faxed to:

**(703) 872-9314 (for formal communications; please mark
"EXPEDITED PROCEDURE")**

Or:

**If it is an informal or draft communication, please label
"PROPOSED" or "DRAFT")**

Customer Service (703) 306-0377

Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington, VA., Sixth Floor (Receptionist)

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is

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(703) 305-4987. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (703) 305-4708 and

IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL Customer Service at (703) 306-0377 FOR THE SUBSTITUTIONS OR COPIES.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
November 8, 2004
Examiner

Tuan Pham


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600